

Amendments to the Claims

1. (Currently amended) A method of providing multicasting a point-to-multipoint service to a plurality of users in radio communication, the method comprising:
 - establishing three or more data transmission states for radio communication;
 - employing two or more state transition conditions to change or maintain the data transmission state; and
 - providing data of the multicasting point-to-multipoint service to the user with a particular data transmission state determined by the state transition conditions,
wherein one data transmission state directly transitions to another data transmission state in accordance with the transition conditions.
2. (Original) The method of claim 1, wherein two of the data transmission states relate to a dedicated channel.
3. (Original) The method of claim 2, wherein, of the two data transmission states, one data transmission state is based upon point-to-point data transmission, and the other data transmission state is based upon point-to-multipoint data transmission.
4. (Original) The method of claim 1, wherein one of the data transmission states pertains to a forward access channel.
5. (Canceled)
6. (Original) The method of claim 1, wherein the state transition conditions comprise, a total number of users, and parameters for radio communication resources.

7-12. (Canceled)

13. (Currently amended) A method of providing ~~multicasts~~ ~~a point-to-multipoint~~ service in a mobile communication system, comprising:

establishing at least a first transmission state, a second transmission state, and a third transmission state for transmitting data to a plurality of terminals, wherein the first transmission state transmits data and control information to a plurality of terminals in a point-to-multipoint manner at a common channel, the second transmission state transmits data and control information, respectively, to a plurality of terminals in a point-to-multipoint manner at separate common data and common control channels, and the third transmission state transmits data and control information to a plurality of terminals in a point-to-point manner; and

selecting one of the transmission states for transmitting data based on at least one state transition condition.

14. (Previously presented) The method of claim 13, wherein any one of the transmission states transition directly to any other transmission state in accordance with the at least one state transition condition.

15. (Previously presented) The method of claim 13, wherein the third transmission state transmits data at one of a dedicated channel and a common channel and transmits control information at a dedicated channel.

16. (Previously presented) The method of claim 13, wherein the at least one state transition condition comprises at least one of transmission power required for transmitting the data, the number of terminals, and a number of codes required.

17. (Previously presented) The method of claim 16, wherein the first transmission state transitions to the second transition state if the transmission power required is larger than a threshold and the second transmission state transitions to the first transition state if the transmission power required is smaller than a threshold.

18. (Previously presented) The method of claim 16, wherein the second transmission state transitions to the third transition state if the number of terminals is smaller than a threshold and the third transmission state transitions to the second transition state if the number of terminals is larger than a threshold.

19. (Previously presented) The method of claim 16, wherein the second transmission state transitions to the third transition state if the number of codes required is smaller than a threshold and the third transmission state transitions to the second transition state if the number of codes required is larger than a threshold.

20. (Previously presented) The method of claim 16, wherein the first transmission state transitions to the third transition state if the number of terminals is smaller than a threshold and the third transmission state transitions to the first transition state if the number of terminals is larger than a threshold.

21. (Previously presented) The method of claim 16, wherein the first transmission state transitions to the third transition state if the number of codes required is smaller than a threshold and the third transmission state transitions to the first transition state if the number of codes required is larger than a threshold.

22. (Currently amended) A method of providing ~~multicasting~~a point-to-multipoint service in a mobile communication system, comprising:
simultaneously transmitting data to a plurality of terminals on a first shared physical channel; and
transmitting information on a second shared physical channel-, the information associated with the data transmitted on the first shared physical channel-,
wherein the information transmitted on the second shared physical channel includes at least one of reception indicator information, channel code information, pilot bits, service data, and information regarding the number and size of the data transmitted on the first shared physical channel.
23. (Currently amended) The method of claim 22, further comprising mapping a ~~common logic~~shared transport channel to the first shared physical channel.
24. (Previously presented) The method of claim 22, wherein the first shared physical channel is a physical downlink shared channel for data.
25. (Previously presented) The method of claim 22, wherein the second shared physical channel is a physical downlink shared channel for control.
26. (Previously presented) The method of claim 22, wherein a plurality of codes are used for the data transmitted on the first shared physical channel.
27. (Previously presented) The method of claim 22, wherein data is transmitted on the second shared physical channel.

28. (Canceled)

29. (Currently amended) A method of providing ~~multicasting~~ a point-to-multipoint service in a mobile communication system, comprising:

receiving data on a first shared physical channel;

receiving information on a second shared physical channel, the information associated with the data transmitted on the first shared physical channel; and

processing the data received on the first shared physical channel using the information received on the second shared physical channel,¹

wherein the information received on the second shared physical channel includes at least one of reception indicator information, channel code information, pilot bits, service data, and information regarding the number and size of the data transmitted on the first shared physical channel.

30. (Currently amended) The method of claim 29, further comprising mapping the data to a ~~common logic~~ shared transport channel.

31. (Previously presented) The method of claim 29, further comprising using a plurality of codes to process the data received on the first shared physical channel.

32. (Previously presented) The method of claim 29, further comprising:

receiving data on the second shared physical channel; and

processing the data received on the second shared physical channel.

33. (Canceled)

34. (Currently amended) An apparatus for providing ~~multicasting~~a point-to-multipoint service in ~~a~~ mobile communication system, comprising:

a first transmitting module ~~adapted to simultaneously-transmitting~~ data to a plurality of terminals on a first shared physical channel; and

a second transmitting module ~~adapted to transmitting~~ information on a second shared physical channel, the information associated with the data transmitted on the first shared physical channel,

wherein the information transmitted by the second transmission module on the second shared physical channel includes at least one of reception indicator information, channel code information, pilot bits, service data, and information regarding the number and size of the data transmitted on the first shared physical channel.

35. (Currently amended) The apparatus of claim 34, wherein the first transmission module ~~adapted to maps a common logic shared transport~~ channel to the first shared physical channel.

36. (Currently amended) The apparatus of claim 34, wherein the first transmission module ~~adapted to uses~~ a plurality of codes for the data transmitted on the first shared physical channel.

37. (Currently amended) The apparatus of claim 34, wherein the second transmission module ~~adapted to transmits~~ data on the second shared physical channel.

38. (Canceled)

39. (Currently amended) A terminal for providing ~~multicasting~~a point-to-multipoint

service in a mobile communication system, the terminal comprising:

a first receiving module adapted to receive receiving data on a first shared physical channel;

a second receiving module adapted to receive receiving information on a second shared physical channel, the information associated with the data transmitted on the first shared physical channel; and

a processing module adapted to use using the information received on the second shared physical channel to process the data received on the first shared physical channel,

wherein the information received on the second shared physical channel includes at least one of reception indicator information, channel code information, pilot bits, service data, and information regarding the number and size of the data transmitted on the first shared physical channel.

40. (Currently amended) The terminal of claim 39, wherein the processing module adapted to map the data received on the first shared physical channel to a common logical shared transport channel.

41. (Currently amended) The terminal of claim 39, wherein the processing module adapted to use a plurality of codes to process the data received on the first shared physical channel.

42. (Currently amended) The terminal of claim 39, wherein the second receiving module adapted to receive data on the second shared physical channel and the processing module adapted to process the data received on the second shared physical channel.

43. (Canceled)

44. (New) The method of claim 1, wherein a data transmission state comprises one of:

a first transmission state transmitting data and control information to a plurality of terminals in a point-to-multipoint manner at a common channel;

a second transmission state transmitting data and control information, respectively, to a plurality of terminals in a point-to-multipoint manner at separate common data and common control channels; and

a third transmission state transmitting data and control information to a plurality of terminals in a point-to-point manner.